Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
PROMOTING EFFICIENT USE OF SPECTRUM THROUGH ELIMINATION OF BARRIERS TO THE DEVELOPMENT OF SECONDARY MARKETS	)	WT Docket No. 00-230

COMMENTS OF TELEDESIC LLC

Teledesic LLC hereby comments on the Notice of Proposed Rulemaking setting forth various Commission proposals for the development of secondary markets.[1] The *Notice* contains a host of proposals designed to "remove unnecessary regulatory barriers to the development of more robust secondary markets in radio spectrum usage rights."[2] Teledesic believes these are worthy goals that should apply across all uses of the radio spectrum.

The *Notice*, however, deals almost exclusively with one subset of these uses – the Wireless Radio Service. By contrast, the *Notice's* only discussion of these goals in connection with the satellite industry is a brief discussion of transponder leasing.[3] This might give the mistaken impression that transponder leasing, by itself, already provides "robust secondary markets" in satellite spectrum, and that no further action need be taken. This is not the case.

---

1 *Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, FCC 00-402 (rel. Nov. 27, 2000) ("*Notice*").

2 *Notice*, ¶ 1.

3 *See id.* ¶ 66 (discussing transponder leasing); *Domestic Fixed-Satellite Transponder Sales,* 90 F.C.C.2d 1238 (1982), *aff'd sub nom. Wold Communications, Inc. v. FCC,* 735 F.2d 1465 (D.C. Cir. 1984), *modified, Martin Marietta Communications Systems,* 60 R.R.2d 799 (1986); *Amendment to the Commission's Regulations and Policies Covering Domestic Fixed Satellite and Separate International Satellite Systems,* 11 F.C.C. Rcd. 2429 (1996).

More comprehensive proposals are necessary in order to extend to the satellite industry the sorts of secondary markets contemplated in the *Notice*. Indeed, given the particular economics of the satellite industry, such markets are at least as important to satellite operators as they are to terrestrial wireless carriers. Teledesic therefore offers the following suggestions:

- First, the Commission should extend its leasing proposal for the Wireless Radio Services to allow satellite licensees to lease spectrum from each other.
- Second, the Commission should eliminate or narrow the "anti-trafficking" rules customarily imposed on satellite services, especially to the extent that they focus on the amount of consideration paid in any arm's-length sale of a satellite license.

I. The Commission's Spectrum Leasing Proposals Should Be Expanded to Allow Satellite Operators to Lease Spectrum

The Commission proposes to allow Wireless Radio Licensees "greater flexibility . . . to subdivide and apportion the spectrum and to lease their rights to use it to various third party users – in any geographic or service area, in any quantity of frequency, and for any period of time during the term of their licenses – without having to secure prior Commission approval."[4] Such flexibility promises to "foster more efficient use of spectrum, facilitate more rapid deployment of new spectrum-based services, and make more spectrum available for existing services that are spectrum constrained, while ensuring that the needs of the public are served."[5]

However, the Commission does not propose to extend its spectrum leasing proposal to the satellite services. This is unfortunate, because robust secondary markets have at least as much promise for satellite services as they have for terrestrial wireless services. Extending the

---

[4] *Notice*, ¶ 20.

[5] *Id.* ¶ 19.

Commission's spectrum leasing proposal to cover the leasing of satellite spectrum would increase service to the public, promote infrastructure investment, and help make adequate spectrum available for the most promising satellite projects even where the initial assignment of spectrum and orbital rights is unavoidably sub-optimal.

One of the most obvious ways in which satellite spectrum leasing can enhance spectrum efficiency is by putting dormant spectrum to use prior to launch. It typically takes at least three years from the date of licensing to construct and launch even a single geostationary satellite, and more ambitious multi-satellite constellations can take even longer.[6] During all of this time, under the Commission's current rules, valuable spectrum remains unused. Meanwhile, the licensees to whom the dormant spectrum is assigned typically find themselves starved for capital investment. For example, in the Ku-band NGSO processing round, the *average* cost estimate to construct, launch, and operate a system for one year was almost $4 billion.[7] Global networks of geostationary satellites routinely have estimated price tags well into the billions of dollars. As a result, practically every satellite licensee requires substantial outside investment, and because system proponents are typically unable to obtain any significant funding until they are licensed, they must raise enormous sums in very short order.

---

[6] Where the initial license leaves open some significant spectrum contingency, the construction timetable can be even more protracted. *See, e.g., Hughes Communications Galaxy,* 13 F.C.C. Rcd. 1351, 1361-62 (Int'l Bur. 1997) (declining to license spectrum for inter-satellite links at the time the service links were licensed); *Motorola Satellite Communications, Inc.,* 10 F.C.C. Rcd. 2268, 2271 (Int'l Bur. 1995) (declining to license spectrum for MSS feeder links at the time the Iridium service links were licensed). Even after satellites are built, the launch process itself can take up to two years for NGSO systems, assuming there are no significant launch mishaps.

[7] *See* Ku-band Applications of The Boeing Company, File No. SAT-LOA-19990108-0006; Hughes Communications, Inc., File Nos. SAT-LOA-19990108-0003 and SAT-LOA-19990108-0002; Denali Telecom, LLC, File No. 160-SAT-P/LA-97/13; SkyBridge, L.L.C., File No. 48-SAT-P/LA-97; SAT-LOA-19970228-00021; Virtual Geosatellite, LLC, File No. SAT-LOA-19990108-0007; Teledesic, LLC, File No. SAT-LOA-19990108-0005.

Leasing of dormant satellite spectrum is a natural solution. For example, GSO licensees still in the construction phase might allow other, less-favorably-situated licensees to make short-term use of more favorable locations. Where international coordination proves particularly difficult at one location, for example, it may be more efficient for one of the operators to lease spectrum at a nearby vacant location. Moreover, spectrum leasing can prevent disputes about "orphaned" spectrum. Had this solution been available in the 1990s, it might averted a three-year proceeding in which prime DBS spectrum remained unused. There, both EchoStar and Tempo had been assigned DBS channels at 119° W.L. EchoStar had launched satellites capable of operating over all of the channels while Tempo was still building its satellite. Under a spectrum leasing regime, Tempo could have simply leased its spectrum to EchoStar. Instead, EchoStar had to request Special Temporary Authority to operate over Tempo's spectrum (granted),[8] ask for an extension of that authority (denied),[9] ask for reconsideration of denial of the extension (denied),[10] request a further STA when Tempo's satellite malfunctioned (no action),[11] and repeat that request after two years (denied).[12] This proceeding, which was resolved only when DirecTV rendered it moot by purchasing Tempo,[13] represented a colossal misallocation of the Commission's and the parties' resources, one that could have been completely eliminated through spectrum leasing.

---

8 *EchoStar Satellite Corp.*, 11 F.C.C. Rcd. 5351 (Sat. & Radiocomm. Div. 1996).

9 *EchoStar Satellite Corp.*, 11 F.C.C. Fcd. 16455, 16457 (Sat & Radiocomm Div. 1996); *Directsat Corp.*, 11 F.C.C. Rcd. 16460, 16462 (Sat & Radiocomm. Div. 1996)

10 *Tempo Satellite Corp.*, 13 F.C.C. Rcd. 9200, 9210-11 (Int'l Bur. 1997).

11 Consolidated Applications for Special Temporary Authority of EchoStar Satellite Corporation and Directsat Corporation, IBFS File Nos. SAT-STA-19970721-00066/00067, File Nos. 92/93-SAT-STA-97 (filed July 18, 1997).

12 *Tempo Satellite, Inc. and DirecTV Enterprises,* 14 F.C.C. Rcd. 7946, 7960-61(Int'l Bur. 1999).

13 *Id.*

Moreover, a licensee still in its construction phase (and still in compliance with its construction milestones) might be able to use a short-term leasing arrangement as a way of raising capital for system deployment. The Commission recently noted in its *Policy Statement* on secondary spectrum markets that it wishes "to consider ways licensees could leverage the value of their retained spectrum usage rights to increase access to capital."[14] Satellite spectrum leasing is one way to further this goal.

Satellite spectrum leasing can also promote greater spectrum efficiency when FCC assignment mechanisms result in a mismatch between the way spectrum is assigned in a processing round and the way consumer demand is distributed. Over the last decade, the Commission has found it increasingly difficult to accommodate all qualified applicants for satellite spectrum. For several decades, the Commission has imposed limits on the acquisition of "expansion slots" for geostationary FSS satellites, and in recent years, the Commission has begun to explore band segmentation, "first to launch" rules, and other strategies for accommodating all qualified applicants in other services. These mechanisms resolve pending licensing proceedings by avoiding mutual exclusivity, but for a variety of reasons a particular licensee may find that it has been assigned less spectrum than is necessary to justify the enormous capital investment that a satellite network requires.

For example, under the Commission's 2 GHz MSS band plan, the Commission will initially assign an equal amount of spectrum to each qualified applicant.[15] However, not all applicants will launch systems, and not all who launch will succeed commercially. In this

---

[14] *Principles of Promoting the Efficient Use of Spectrum by Encouraging the Development of Secondary Markets,* Policy Statement, FCC 00-401 at ¶ 23 (rel. Dec. 1, 2000) ("*Policy Statement*").

[15] *See Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band*, 15 F.C.C. Rcd. 16127, 16138 (2000).

situation, there seems to be no reason why MSS entrants who are capacity-constrained could not lease additional spectrum from operators with excess capacity. This would reward commercial success and (not incidentally) provide incentive for MSS operators to build frequency agility into their network designs. So long as spectrum leasing does not interfere with a service's primary allocation, the Commission should grant satellite operators that which it proposes for terrestrial wireless carriers: the flexibility to "subdivide and apportion the spectrum and to lease their rights to use it to various third party users."[16]

As the Commission notes in the NPRM, there is already a very healthy market for leasing of geostationary FSS transponders.[17] Healthy as this market is, however, its scope is rather limited. Unlike the Commission's proposals for the Wireless Radio Services, for example, transponder leasing only permits the leasing of spectrum that is already available for use, whereas the real innovation proposed in the NPRM is to make *unused and underused* spectrum available for leasing. In this respect, permitting the leasing of *unused and underused* satellite spectrum or orbital resources would be even more in keeping with the goals of "promot[ing] more efficient use of spectrum and allow[ing] more entities to gain access to spectrum so that it may be put to innovative uses"[18] than is the current transponder leasing market.

The Commission's primary goal in expanding secondary markets is to put dormant spectrum to use:

---

16 *Notice*, ¶ 20.

17 *Notice*, ¶ 66.

18 *Notice*, ¶ 18.

> More intensive use of spectrum that is already licensed but is underutilized or inefficiently utilized has the potential to help alleviate imbalances between the supply and demand for spectrum in certain markets, address the problem of underserved rural areas, and, in general, ensure the efficient provision of existing and new wireless services to all markets.[19]

Satellite spectrum leasing will further this goal. By facilitating satellite construction, and making better use of unused satellite spectrum and orbital resources, spectrum leasing would also help speed service to underserved rural areas, which satellite operators are uniquely positioned to provide.

In sum, there is more to secondary spectrum markets than the transponder leasing model suggests. Teledesic urges the Commission to use this proceeding to develop more comprehensive methods of making unused spectrum available for actual service to the public.

II. The Commission Should Relax its Satellite Anti-Trafficking Rules

Just as spectrum leasing encompasses more than transponder leasing, secondary markets encompass more than spectrum leasing. Whenever licenses change hands after initial assignment, a secondary market is operating.[20] This market must operate efficiently if it is to "permit spectrum to flow more freely among users and uses in response to economic demand."[21] Given the importance of equity funding to satellite operators, this use of the secondary market to obtain funding may well be more important than spectrum leasing. For satellite operators, however, the ability to obtain equity funding is severely constrained by the Commission's anti-trafficking policies, which have been codified in most satellite service rules.[22]

---

19 *Notice*, ¶ 8.

20 "[I]n this NPRM, the concept of secondary markets generally refers to markets in which an entity may acquire licenses (either in whole or in part), or rights to use all or portions of the licensed spectrum, from Commission licensees." *Notice*, ¶ 5.

21 *Policy Statement*, ¶ 1.

22 See, e.g., 47 C.F.R. § 25.143(g) (Big LEO service rules); 47 C.F.R. § 25.145(d) (Ka-band service rules).

In part because these rules fail to provide clear notice of what transactions are permissible, they serve in practice to restrict transactions that bear little relation to any legitimate concerns about license speculation.

The satellite anti-trafficking rules all prohibit "trafficking," but do not define what trafficking is. Historically, the central idea has been that trafficking is a matter of *speculative intent*[23]; to "traffic" in licenses is to obtain them with the intent of selling them rather than providing service to the public.[24] In other words, the anti-trafficking rules developed as a way to discourage speculation, not to prohibit profitable sales *per se*.[25] In some more recent orders adopting satellite service rules, however, the Commission has thrown the definition of "trafficking" into confusion, intimating that the term extends not merely to speculation, but to *any* sale of a license for profit.[26] This focus on the value of the consideration exchanged seems to confound trafficking with the Commission's "no-profit" rules from the broadcast context,[27] and, in any event, seems much more restrictive than the Commission's case law would support.[28]

---

23 *Vogel-Ellington Corp.,* 41 F.C.C.2d 1005, 1009 (Rev. Bd. 1973) ("crucial element" of trafficking is "intent").

24 *See, e.g.,* 47 C.F.R. § 1.948(i)(1) (defining ULS trafficking as "obtaining or attempting to obtain an authorization for the practical purpose of speculation or profitable resale of the authorization rather than for the provision of telecommunications services to the public or for the licensee's own private use").

25 *Crowder v. FCC,* 399 F.2d 569, 571 (D.C. Cir.), *cert. denied,* 393 U.S. 962 (1968).

26 *See, e.g., Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, and Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services,* 12 F.C.C. Rcd. 22310, 22339-40 (1997) (referring to "the selling of a bare license for a profit").

27 *See, e.g., Assignment and Transfer of Construction Permits for New Broadcast Stations*, 16 F.C.C.2d 789, 789 (1969).

28 In addition, at least one version of the satellite anti-trafficking rule applies by its terms only to non-geostationary licenses, 47 C.F.R. § 25.145(d), even though there is no apparent rationale for exempting geostationary licenses and even though the Commission has subsequently applied it to a geostationary system. *See KaStar 73 Acquisition, LLC, and KaStar 109.2 Acquisition, LLC,* 15 F.C.C. Rcd. 1615, 1619 (1999).

Thus, as they are currently written, the anti-trafficking rules may or may not apply to certain transactions, may or may not apply where there is no speculative intent, and may or may not apply at all to some geostationary licensees. Given this uncertainty, and given what appears to be greater Commission activism in this area, satellite operators are prudent to avoid some transactions that no reasonable person would consider speculation. This unquestionably inhibits efficient trading that the Commission would like to encourage.

Neither the vagueness of the codified rules nor the overly restrictive bent they have taken can be written off as mere academic curiosities. Because of these shortcomings, the anti-trafficking rules hinder satellite companies from accessing the most promising forms of financing. As described above, satellite networks require huge capital investments, and almost every project depends on substantial outside investment. Such investment typically comes in the form of venture capital arrangements in which the satellite operator obtains financing by selling equity in the company. Yet, under the anti-trafficking rules, as soon as a satellite licensee tries to raise capital by selling equity, it must prove that it isn't "intending to profit" on the sale of its license (or, if the more recent glosses control, that it *did not profit* from the sale of its license). In other words, any time a satellite operator tries to raise significant amounts of money from venture capitalists in exchange for equity, its license is put at risk.

Given the importance of equity capital to satellite communications ventures, the Commission should find *any* needless barrier to capital investment extremely troubling. If the Commission's policy is truly to "encourage licensees to be more spectrum efficient by freely trading their rights to unused spectrum capacity, [including by] selling their rights to unused frequencies,"[29] then the proposals developed in this proceeding should include provisions

[29] *Policy Statement*, ¶ 12.

relaxing the satellite anti-trafficking rules, making clear that satellite operators can obtain equity funding without regard to the amount of consideration exchanged.

Conclusion

Teledesic believes that the Commission's proposals for secondary markets contain much promise. The goals articulated in the *Notice* – efficient use of spectrum, rapid deployment of service, and increased spectrum for existing services – are as important for satellite services as they are for Wireless Radio Services. By allowing satellite operators to lease spectrum from each other and relaxing the satellite anti-trafficking rules, the Commission will have taken a major step towards reaching these goals for *all* users of the radio spectrum.

Respectfully submitted,

By: /s/ Mark A. Grannis
Scott Blake Harris
Mark A. Grannis
Michael Nilsson
HARRIS, WILTSHIRE & GRANNIS LLP
1200 EIGHTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
(202) 730-1300

Attorneys for Teledesic LLC

February 9, 2001

CERTIFICATE OF SERVICE

I, Colette D. Owens, do hereby certify that I caused the foregoing Comments of Teledesic LLC to be served on the parties listed below by hand delivery or by first-class U.S. mail, postage prepaid, on this 9th day of February, 2001.

Chairman Michael D. Powell
Federal Communications Commission
445 12th Street, SW
Washington, DC 20054

Commissioner Susan Ness
Federal Communications Commission
445 12th Street, SW
Washington, DC 20054

Commissioner Gloria Tristani
Federal Communications Commission
445 12th Street, SW
Washington, DC 20054

Commissioner Harold Furchtgott-Roth
Federal Communications Commission
445 12th Street, SW
Washington, DC 20054

Paul Murray
Commercial Wireless Division
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, SW
Washington, DC 20054

Donald Johnson
Commercial Wireless Division
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, SW
Washington, DC 20054

/s/ Colette D. Owens